HEALTH POLICY BRIEF

RHODE ISLAND DEPARTMENT OF HEALTH

Osteoporosis Program: Priorities Identified to Address Issues Related to the Prevention, Diagnosis, and Treatment of Osteoporosis

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Safe and Healthy Lives in Safe and Healthy Communities

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Introduction

Osteoporosis, or "porous bone", is a disease characterized by a significant loss of bone mass. It results in weak and brittle bones that can fracture easily. There are no early warning signs or symptoms, therefore it is often referred to as a "silent disease".[1,2] Osteopenia is a condition where bones have begun to weaken and bone loss has begun. It is also called low bone mass (LBM).

Osteoporosis can be debilitating and deadly which often results in enormous emotional and lifestyle consequences, such as:

- Forced retirement
- Loss of independence
- Permanent disfigurement
- Depression
- Social isolation
- Decreased well-being

Health Outcomes and Cost of Osteoporosis
• Osteoporosis results in more than 1.5 million fractures each year, many resulting in hospitalization, surgery, nursing home admission, and life-long pain.
• One-half of women and one out of eight men over the age of 50 will experience an osteoporosis-related fracture in their lifetime.
• An average of 24% of hip-fracture patients over the age of 50 die in the year following the injury.
• One-half of <u>all</u> hip-fracture victims became disabled for the remainder of their lives.
• In the year 2001 alone, the nation paid $47 million dollars <u>per day</u> on osteoporosis-related fractures, totaling $17 billion dollars.

Source: National Osteoporosis Foundation, 2002[5]

Osteoporosis can typically be attributed to one of three main factors[1]:

1) suboptimal bone growth during childhood, adolescence, or early adulthood;
2) excessive bone loss during adulthood; and
3) bone loss secondary to a disease condition and certain medications.

An estimated 55% of adults over the age of 50 have osteoporosis or low bone mass (LBM).

Osteoporosis is a major public health issue.[3] The National Osteoporosis Foundation (NOF) estimates that nearly 44 million women and men over the age of 50 in the United States suffer from osteoporosis or LBM. According to NOF figures, 50% of Rhode Islanders over the age of 50 suffer from osteoporosis or LBM. Development can begin as early as childhood and continue through adulthood.[4] However, osteoporosis is <u>not</u> a natural part of aging. It can be prevented and treated.

Prevalence Figures for Ages 50 and Over, Rhode Island, 2002						
Women – Osteoporosis	**Women – LBM**	**Women – Osteoporosis and LBM**	**Men – Osteoporosis**	**Men – LBM**	**Men - Osteoporosis and LBM**	**Total Men and Women - Osteoporosis and LBM**
32,400	86,700	119,100	8,800	44,700	53,500	172,600

Source: National Osteoporosis Foundation, 2002[4]

Preventing Osteoporosis[2,5]:

Below is a list of factors that can lead to the development of osteoporosis:

Risk Factors for the Development of Osteoporosis	
• Low levels of calcium and vitamin D • Physical inactivity • Tobacco and excessive alcohol use • Certain medications (e.g., glucocorticoids) • Eating disorders (e.g., anorexia nervosa) • Amenorrhea (abnormal absence of menstrual periods) • Menopause (especially early or surgically-induced menopause)	• Female gender (80% of people with osteoporosis are female) • Increasing age • Ethnicity (Caucasian and Asian women at highest risk)* • Personal history of fracture • Family history of fracture or osteoporosis • Low body weight (<127 pounds) • Low testosterone in men

* Although Caucasian and Asian populations are commonly viewed as high-risk groups, Hispanic, American Indians, and African Americans (non-Hispanic black) are at risk of developing osteoporosis.

Estimated Percent of Adults Aged 50 Years and Over to Have Osteoporosis or Low Bone Mass by Ethnic Group, Nationally, 2002

	Non-Hispanic White	Asian	Hispanic and American Indians	Non-Hispanic Black
Women with osteoporosis	20%	20%	10%	5%
Women with low bone mass	52%	52%	49%	35%
Men with osteoporosis	7%	7%	3%	4%
Men with low bone mass	35%	35%	23%	19%

Source: National Osteoporosis Foundation, 2002[4]

Health Care Provider/Patient Discussion

Patient visits to health care providers should include routine discussions about osteoporosis addressing the following issues:

- prevention through nutrition and exercise throughout the lifespan;
- timely diagnosis according to national recommendations;
- treatment for osteopenia and osteoporosis, if appropriate; and
- referral to a registered dietitian and physical therapist, if appropriate.

Overall provider/patient discussions have been found to be lacking. A recent US study found 49% of women aged 45 and over reported that a health care provider ever spoke with them about osteoporosis.[6] In RI, this figure was considerably higher at 63%. However, this number decreases to 47% when looking at all adult women over the age of 18.[7]

Studies have also shown that health care providers, specifically physicians, are identifying less than 10% of osteoporosis cases.[6,8] Screening guidelines by the NOF and the US Preventive Services Task Force may help increase proper diagnoses. In addition, research indicates that treatment among women with osteoporosis is also low.[8]

RI has an agenda to address osteoporosis.

The Osteoporosis Program is a legislatively-mandated program housed in the Office of Women's Health within the RI Department of Health (HEALTH). HEALTH has identified the actions below as priorities to address osteoporosis issues identified above.

As a main focus, HEALTH staffs and works collaboratively with the Rhode Island Osteoporosis Group (RIOG). RIOG is a coalition whose members include health professionals representing a wide range of health organizations and agencies and consumers. RIOG released their Osteoporosis State Plan in the Spring, 2003. The Plan provides guidance to RIOG and others in RI who advocate for the prevention, timely diagnosis, and appropriate treatment of osteoporosis and its complications among all Rhode Islanders.

Priority Actions of the Osteoporosis Program, RI Department of Health

Advocacy	Public Education	Professional Education	Surveillance
• Assist in assessing policies, legislation, insurance coverage, and programs and materials dealing with osteoporosis • Assist in grant writing to gain financial support	• Participate in RIOG speaker's bureau • Collaborate with RIOG on Osteoporosis Prevention Month events • Collaborate with the Arthritis Foundation to expand *Osteoporosis and You!* Trainings • Maintain HEALTH osteoporosis web pages	• Sponsor and coordinate conferences and grand rounds • Collaborate with RIOG on initiatives to increase health care provider/patient discussion on osteoporosis	• Formulate and analyze osteoporosis module for Behavioral Risk Factor Surveillance System • Disseminate state-specific data

Data sources:

Rhode Island Behavioral Risk Factor Surveillance System (BRFSS)

The RI BRFSS is a telephone survey of a representative sample of Rhode Island adults (ages 18 years and older). The survey has been performed annually since 1984 with funding from the federal Centers for Disease Control and Prevention (CDC). Sampling and telephone interviewing are done by a professional survey organization under contract to HEALTH, with a sample size of 3,544 respondents in 2000. Results from the RI BRFSS are available on the OHS website: *http://www.healthri.org/chic/statistics/brsf2000.pdf* and on CDC's BRFSS website: *ttp://www.cdc.gov/brfss*

For more information about HEALTH's Osteoporosis Program in the Office of Women's Health, contact Nancy Sutton, MS, RD at 401-222-1383 or visit the HEALTH website at: http://www.HEALTH.ri.gov.

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Rhode Island Department of Health

This report was prepared by Nancy Sutton, MS, RD.

References:

1. National Institutes of Health. *Facts on osteoporosis.* Available at http://www.osteo.org/ Accessed November, 2002.
2. National Institutes of Health. *Osteoporosis: Progress and Promise.* Available at http://www.niams.nih.gov/. Accessed November, 2002.
3. Gehlbach, SA, Fournier, M, and Bigelow, C. Recognition of osteoporosis by primary care physicians. *Am J Public Health.* 2002;92:271-273.
4. National Osteoporosis Foundation. *America's bone health: the state of osteoporosis and low bone mass in our nation.* Washington, DC, National Osteoporosis Foundation, February 2002.
5. National Osteoporosis Foundation. Available at http://www.nof.org/. Accessed November, 2002.
6. Gallagher, TC, Geling, O, and Comite, F. Missed opportunities for prevention of osteoporotic fracture. *Arch Intern Med.* 2002;162:450-456.
7. Rhode Island Department of Health. *Behavioral Risk Factor Surveillance System.* BRFSS. 1998-1999.
8. Gehlbach, S, Fournier, M, Bigelow, C. Recognition of osteoporosis by primary care physicians. *Am J Public Health.* 2002;92:271-273.